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EXAMINER	
PROCTOR, JASON SCOTT	

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/020,033	BANKI ET AL.	
	Examiner	Art Unit	
	Jason Proctor	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 May 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) *35-42* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *35-42* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *5/15/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-34 were rejected in Office Action of 14 October 2005. In response, Applicants filed an Amendment After Final Rejection on 19 December 2005 which was not entered, a Notice of Appeal on 14 February 2006, and a Request for Continued Examination on 15 May 2006.

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 15 May 2006 has been entered.

Applicants' submission of 15 May 2006 has amended claims 1, 9, 10, 12, 14-18, 20, and 29; cancelled claims 32-34; and presented new claims 35-42. Claims 1-31 and 35-42 are pending in this application.

Claims 1-31 are rejected. Claims 35-42 are subject to a restriction requirement.

Restriction Requirement

1. Newly submitted claims 35-42 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Independent claim 35 defines an invention requiring "a reservoir simulation model ... wherein the facilities represent physical equipment in the flow path between a reservoir and delivery location" which independent from

the inventions of claims 1-31. None of claims 1-31 requires "a reservoir simulation model" as specified by claim 35. Further, none of claims 1-31 are restricted to a system "for simulating fluid flow" as recited by the preamble of claim 35. Independent claims 1 and 20 both require constructing "logic to customize simulation of transport phenomena through a model of the physical system," which is separate and distinct from the limitations of claim 35.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 35-42 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 15 May 2006 was filed after the mailing date of the final Office Action on 14 October 2005. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

A reference applied below under 35 U.S.C. § 103, US Patent No. 6,052,520 to Watts, III, shares a common assignee with the instant application. This reference qualifies as prior art under 35 U.S.C. § 102(a) and therefore is not excluded by the provisions of 35 U.S.C. § 103(c). This reference is relevant prior art but has not been submitted to the Office in an Information Disclosure Statement.

A reference cited on form PTO-892, "Reservoir Simulation: Past, Present, and Future" by J.W. Watts, SPE, Exxon Production Research Company, was discovered by reviewing the

prosecution history of patent application 09/712,567 which issued as US Patent 6,928,399, assigned to ExxonMobil Upstream Research Company. None of these references have been cited in an Information Disclosure Statement.

In the interest of compact prosecution, the Examiner respectfully requests that Applicants consider the patent and non-patent literature known to and available to the persons identified in 37 CFR 1.56, which includes the assignee of the application, for the timely submission of potentially relevant prior art.

Rejections under 35 U.S.C. § 112

The previous rejections under 35 U.S.C. § 112, first paragraph, are withdrawn in response to Applicants' remarks and amendments to the claims.

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 11 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 requires "an object-oriented language with features and scope suited to embody facility management logic." The precise definition of "facility management logic" is unknown. Therefore, it is entirely unclear what "features and scope" would be "suited to embody" the undefined "facility management logic." It is unknown how to identify in the prior art whether a given "facility management control language" meets the requirements of claim 11.

4. Claims 20-31 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 20 recites the limitation "the main simulation system" in step b) ii). There is insufficient antecedent basis for this limitation in the claim.

Claim Interpretation

5. The Examiner submits the following remarks regarding a broad, reasonable interpretation of the claim language.

In all instances, underlined text indicates emphasis added to the claim language.

Claim 1 recites, in step a), "provide a logic interface that enables a simulator user of the computer system to dynamically construct..." which does not require that the simulator user perform a step of "dynamically constructing." The plain meaning of the claim language is that the logic interface does not prevent a user from "dynamically constructing" as claimed.

Claim 1 recites, in step b), "convert the constructed logic into corresponding object-oriented code during a simulation without intervention of the simulator user," and step c) is

logically (thus temporally) dependent upon step b) for recitation of "integrate the object-oriented code..." Step d) recites "execute the integrated simulation system." Step d) appears functionally equivalent to, for example, "perform a simulation using the integrated simulation system," and therefore it appears that, according to the claim language, steps b) and c) are performed during step d).

Claim 1 recites, in steps b) and c), performing certain steps "without intervention of the user," whereas step a) clearly suggests "intervention of the user" by the language, "a logic interface that enables a simulator user of the computer system to dynamically construct logic to customize simulation of transport phenomena through a model of the physical system." Therefore, in the claim language, the act of "dynamically constructing" does not appear to fall under the definition of "intervention of the user." The prior art will be analyzed under the same interpretation.

Claim 2 recites "wherein the constructed logic comprises facility management logic which is representative of steps used to simulate the monitoring and controlling of mechanical facilities associated with the physical system." Therefore, based upon the claim language, "facility management logic" is interpreted as "logic representative of steps used to simulate the monitoring and controlling of mechanical facilities associated with the physical system."

Claim 6 recites claim language employing the word "enables" and therefore merely requires that the "icons that represent logic control mechanisms do not prevent the simulator user of the computer system to construct customized logic flow charts."

Claim 13 recites claim language employing the word "enables" and therefore merely requires that the "logic interface does not prevent the simulator user of the computer system to develop logic using either a logic flow chart interface or at text-based logic code interface."

Claim 14 recites claim language employing the word "enabling" and therefore merely requires that "the object-oriented code extends the simulation data model by creating new classes that inherit from the simulation data model, thereby not preventing the object-oriented code to call functions of the integrated simulation system and use member data of the integrated simulation system."

Claim 15 recites claim language employing the word "enabling" and therefore merely requires that "...[the object-oriented software] does not prevent loading of the shared libraries into the main simulation system."

Claim 16 recites claim language employing the word "enabling" and therefore merely requires that "...[the object-oriented software] does not prevent linking of the dynamic linked libraries into the main simulation system."

Claim Rejections - 35 USC § 103

The previous rejections under 35 U.S.C. § 103 are withdrawn because an updated search of the prior art has revealed better prior art references. Applicants' arguments regarding the

previous rejections have been fully considered but are moot in view of the new grounds of rejection.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. § 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. § 103(c) and potential 35 U.S.C. § 102(e), (f) or (g) prior art under 35 U.S.C. § 103(a).

6. Claims 1-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over "Object Oriented Visual Interactive Simulation" by Ranko Vujosevic (hereafter referred to as Vujosevic) in view of US Patent No. 6,052,520 to Watts, III (hereafter referred to as Watts).

Regarding claims 1 and 20, Vujosevic teaches:

A computer system for simulating a physical system comprising memory having object-oriented software in a main simulation system [*"A VIS system must provide visual capabilities for graphical display of a simulation model and animation of simulated activities."* (page 490, left column, second paragraph)], the object oriented software configured to:

Provide a logic interface that enables a simulator user of the computer system to dynamically construct logic to customize simulation of the physical system [*"1) Visual interactive modeling. The user must be able to develop a simulation model by creating the graphical description of the system to be simulated." "3) User – model interaction. A VIS system must provide the user with mechanisms to stop the simulation, change some modeling and/or simulation parameters, and continue the simulation."* (page 490, left column); *"One of the key features that must be provided in a VIS system is the user-model interaction during the execution of a simulation experiment. The user must be ablt to interrupt a simulation run, make changes in the model* ***or even in the simulation driver's computer code****, and continue simulation"* (page 495, right column, first full paragraph, emphasis added)];

Convert the constructed logic into corresponding object-oriented code during a simulation without intervention of the simulator user [*"(Object Oriented Programming) OOP is increasingly used for discrete event simulation (DES)."* (page 490, right column, fourth paragraph); Section 2; Implicitly disclosed as cited above (page 495, right column, first full

paragraph) because a person of ordinary skill in the art would recognize that *making changes ... in the simulation driver's computer code* involves *compiling* by a *computer software compiler* which is a *computer program* that "automatically converts constructed logic into corresponding object-oriented code"];

Integrate the object-oriented code with the main simulation system which comprises a simulation data model and simulation algorithms, resulting in an integrated simulation system without intervention of the simulator user [*"Changes should stay recorded in the model even after simulation is completed."* (page 495, right column, first full paragraph)].

Vujosevic does not expressly teach that the **intended use of the simulation system** is for "transport phenomena through a model of a physical system" as recited.

Watts teaches simulation of transport phenomena through a model of a physical system [*"Reservoir simulation is a process of inferring the behavior of a real reservoir from the performance of a model of that reservoir. Because mass transfer and fluid flow processes in petroleum reservoirs are so complex, reservoir simulations can only be done using computers."* (column 1, lines 16-20); *"Reservoir simulation often refers to the hydrodynamics of flow within a reservoir, but in a larger sense it also refers to the total petroleum system which includes the reservoir, the surface facilities, and any interrelated significant activity."* (column 1, lines 30-35)].

Vujosevic and Watts are analogous art because both are drawn to simulation and modeling.

Therefore it would have been obvious to use the simulation system taught by Vujosevic for the intended use of simulating transport phenomena through a model of a physical system by defining the objects and methods of the simulation system for that purpose.

Motivation to do so is expressly taught by Watts [*"The objective of reservoir simulation is to understand the complex chemical, physical, and fluid flow processes occurring in a petroleum reservoir sufficiently well to be able to predict future behavior of a reservoir and to maximize recovery of hydrocarbons."* (column 1, lines 22-26)].

Therefore it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Watts with Vujosevic to arrive at the claimed invention.

Regarding claim 2, Vujosevic teaches logic which is representative of steps used to simulate the system that is the object of simulation [*"The user must be able to interrupt a simulation run, make changes in the model or even in the simulation driver's computer code, and continue simulation."* (page 495, right column, first full paragraph)].

Further, Watts teaches the intended use of simulating mechanical facilities associated with the physical system [*"Reservoir simulation often refers to the hydrodynamics of flow within a reservoir, but in a larger sense it also refers to the total petroleum system which includes the reservoir, the surface facilities, and any interrelated significant activity."* (column 1, lines 30-35)].

Therefore, for the reasons set forth above, it would have been obvious to a person of ordinary skill in the art at the time of Applicants' invention to combine the teachings of Watts with Vujosevic to arrive at the claimed invention.

Regarding claims 21 and 22, Watts teaches that the physical system comprises a hydrocarbon-bearing subterranean formation and the physical system comprises fluid-containing facilities associated with production of hydrocarbons from the hydrocarbon-bearing subterranean formation [*"Reservoir simulation often refers to the hydrodynamics of flow within a reservoir, but in a larger sense it also refers to the total petroleum system which includes the reservoir, the surface facilities, and any interrelated significant activity."* (column 1, lines 30-35)].

Regarding claim 23, Vujosevic teaches that construction of the logic comprises using a graphical user interface to perform selecting and using an existing logic [*"The user selects an existing model through a menu-driven dialogue. The user is able to list the model base and selects models interactively. Characteristics of a selected model are displayed graphically and numerically."* (page 493, left column, fourth full paragraph)].

Regarding claims 3 and 24, Vujosevic teaches that the logic interface comprises a logic flow chart interface [*"Modifications of an existing model, such as replacing or deleting icons are supported as well."* (page 493, left column, fourth full paragraph); also (page 495, right column, first full paragraph)].

Regarding claim 4-6 and 26, Vujosevic teaches that the logic flow chart comprises icons [*"Modifications of an existing model, such as replacing or deleting icons are supported as well."* (page 493, left column, fourth full paragraph)]. Vujosevic teaches that the logic flow chart interface comprises icons representing basic logic control constructs for looping, decision making, statement execution, logic entry, and exit [*"Modifications of an existing model, such as replacing or deleting icons are supported as well."* (page 493, left column, fourth full paragraph); also (page 495, right column, first full paragraph)].

Regarding claim 25, Vujosevic teaches that construction of the logic produces a text-based logic code [*"The user must be able to interrupt a simulation run, make changes in the model or even in the simulation driver's computer code, and continue simulation. Changes should stay recorded in the model even after simulation is completed."* (page 495, right column, first full paragraph)]. A person of ordinary skill in the art of computer simulation and modeling is presumed to be aware of various "text-based logic codes" for computer software, such as C++ described by Vujosevic (page 490, right column, last full paragraph).

Regarding claims 7, 8, and 27, Vujosevic teaches that the logic interface comprises a text-based logic code interface and a graphical text editor for performing one or more of entering, modifying, and deleting lines of alpha-numeric text [*"Characteristics of a selected model are displayed graphically and characteristics of a selected model are displayed graphically and numerically. Modifications of an existing model, such as replacing or deleting*

icons are supported as well." (page 493, left column, fourth full paragraph); also (page 495, right column, first full paragraph)].

Regarding claims 9-12, Vujosevic teaches that the logic interface comprises a logic flow chart interface [*"Modifications of an existing model, such as replacing or deleting icons are supported as well."* (page 493, left column, fourth full paragraph); also (page 495, right column, first full paragraph)]. Vujosevic teaches the use of C++ [*"A variety of OOP languages have been used for developing DES systems, such as: C++..."* (page 490, right column, last full paragraph)].

Claim 1 requires that logic code is converted "without intervention of the simulator user," thereby encompassing being "automatically created from a logic flow chart" as recited by claim 9.

By meeting the recited limitations of claims 9 and 10, Vujosevic teaches a language that meets the "features and scope suited to embody facility management logic."

In response to the rejections of claims 9-12, the Examiner respectfully suggests that Applicants identify how these particular limitations referring to C++, etc., would patentably distinguish the invention from the prior art **rather than merely define an equivalent invention** using, for example, the C programming language a different object-oriented programming language.

Regarding claim 13, Vujosevic teaches that the user is not prevented from developing logic using a logic flow chart interface [*"Modifications of an existing model, such as replacing*

or deleting icons are supported as well." (page 493, left column, fourth full paragraph); also (page 495, right column, first full paragraph)].

Regarding claim 28, Vujosevic teaches the use of C++ [*"A variety of OOP languages have been used for developing DES systems, such as: C++..."* (page 490, right column, last full paragraph)].

Regarding claims 14 and 29, Vujosevic teaches that the object-oriented code extends the simulation data model by creating new classes that inherit from the simulation data model [*"A variety of OOP languages have been used for developing DES systems, such as: C++ ... Simula ... and Smalltalk."* (page 490, right column, last full paragraph)]. A person of ordinary skill in the art of computer simulation and modeling is presumed to know the basic features of old and well-known computer languages, such as creating classes and inheritance. Vujosevic contains no disclosure that these languages "prevent the object-oriented code from calling functions of the integrated simulation system and using member data of the integrated simulation system." The Examiner submits that this claim language merely describes the inherent characteristics that define an object-oriented programming language.

Regarding claims 15 and 16, Vujosevic teaches that the object-oriented software is further configured to compile the object-oriented code into object-oriented facility management object code and link the object-oriented facility management object code to produce shared libraries, thereby enabling loading of the shared libraries into the main simulation system [*"A*

variety of OOP languages have been used for developing DES systems, such as: C++ ... Simula ... and Smalltalk." (page 490, right column, last full paragraph)]. A person of ordinary skill in the art of computer simulation and modeling is presumed to know the basic features of old and well-known computer languages, such as shared object libraries and dynamic-link libraries.

Regarding claim 17, Vujosevic teaches that the object-oriented software is configured to execute the integrated simulation system by invoking the object-oriented facility management code at a plurality of timesteps during the simulation [*"OOP is increasingly used for discrete event simulation (DES)."* (page 490, right column, fifth full paragraph)]. A person of ordinary skill in the art of computer simulation and modeling is presumed to understand the meaning of the term "discrete event simulation".

Regarding claim 18, Vujosevic teaches that the object-oriented code returns control back to the main simulation system after the facility management code has finished executing for a current timestep [(page 490, right column, fifth full paragraph); *"One of the key features that must be provided in a VIS system is the user-model interaction during the execution of a simulation experiment."* (page 495, right column, first full paragraph)]. Vujosevic clearly teaches an interface to facilitate user-model interaction, and as would be apparent to a person of ordinary skill in the art of computer software, any reasonable implementation of that interface involves "returning control back to the main simulation system (comprising the interface) after executing the simulation time step."

Regarding claim 30, Vujosevic teaches that execution of the initiated simulation system generates results for predicting the overall behavior of the physical system [*"The visualization of simulation statistics during a simulation experiment is a feature that significantly increases the efficiency of the user-model interaction... For example, during the simulation of an FMS, the user can constantly check the utilization of equipment, queue lengths, part statistics etc."* (page 493, right column, sixth full paragraph)].

Regarding claims 19 and 31, Official Notice is taken that plural processor systems are known in the art, their advantages are known in the art, and a person of ordinary skill in the art would have found it obvious to implement the combined teachings of Kodosky '221 and Hill on a plural processor system. Numerous references for performing a simulation on a plural processor system can be found in the prior art, including at least Japanese Patent Publication No. JP 06035863 A, which has been provide with the English language abstract.

Response to Arguments

In response to the previous rejections under 35 U.S.C. § 103, which have been withdrawn, Applicants submit that:

> [The references] fail to disclose *object-oriented software configured to* "convert the constructed logic into corresponding object-oriented code during a simulation without intervention of the simulator user," as recited in claim 1, and "automatically converting the logic into corresponding object-oriented code," as recited in claim 20. (emphasis in original)

The Examiner submits that this argument is not persuasive because the **form** of the software code that is compiled and executed is irrelevant to the **nature of the resulting computer software**. That is, a program written by a French-speaking programmer that contains French

variable and class names would compile to produce a program **completely equivalent** to the same program written by an English-speaking programmer using English variable and class names. Similarly, a program written in a functional programming style that compiles to produce a given program, say "Program A," would be **completely equivalent** to the same "Program A" compiled from object-oriented source code. This is because the substance, not the **form,** of the software code is determinative of the **nature of the resulting software**.

The Examiner acknowledges that it may be possible to patentably distinguish a program compiled from object-oriented code from a seemingly identical program compiled from some other type of programming language, however the differences lie in the compiler design, computer memory management, execution efficiency, and other features deeply internal to the operation of a computer. Applicants have attempted to distinguish the invention on none of these features and the Examiner submits that the disclosure of the application does not appear to support any such distinction.

Therefore the Examiner submits that the previous rejections under 35 U.S.C. § 103 have been withdrawn in deference to the newly discovered references that have been applied above and not in response to a persuasive argument submitted by Applicants.

Conclusion

Art considered pertinent by the examiner but not applied has been cited on form PTO-892.

"Reservoir Simulation: Past, Present, and Future" by J.W. Watts, SPE, Exxon Production Research Company discloses a description of the state of the art in simulation of hydrocarbon reservoirs, circa 1997.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Proctor whose telephone number is (571) 272-3713. The examiner can normally be reached on 8:30 am-4:30 pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached at (571) 272-3753. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jason Proctor
Examiner
Art Unit 2123

PAUL RODRIGUEZ
SUPERVISORY PATENT EXAMINER
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7/21/06

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